10mm<IPP). All patients underwent surgical intervention with anterior approach of prostatectomy and the continence component such as pubo-prostatic ligament and arcus tendineus were preserved. Posterior reconstruction of the rhabdomyosphincter was also performed. Continence was defined as no pad use or only one safety pad per day and assessed at 1, 3 and 12 months postoperatively. The correlation between the intravesical prostatic protruding and postoperative continence was examed.
Results: The overall continence rate at 1, 3 and 12 month was 69.2%, 91.33% and 95.5%. Among the three groups, there is significant difference in 1 month, 3 month and 12 month continence rate (IPP < 5mm: 82.5%, 96.3%, 97.7%; 5mm < IPP < 10mm: 61.9%, 89.4%, 94.4%; 10mm < IPP: 30%, 75.6%, 88.9%, $p < 0.001$). At one month, 415 patients achieved continence but 195 patients still incontinence and the length of IPP among the two groups were 4.43 ± 3.74 mm and 8.69 ± 6.63mm, $p < 0.001$. Respectively, at the 3 month and 12 month, 548 and 573 patients achieved continence and the IPP length among continence and incontinence group were 5.29 ± 4.56mm vs. 10.50 ± 8.32mm and 5.55 ± 4.93 vs. 9.88 ± 8.37, there is also statistical significance.
Conclusions: To our result, the intravesical prostatic protrusion have negative influence in continence of patients received robotic assisted radical prostatectomy. The patient with less protruding prostate may achieve early continence after operation and the postoperative incontinence rate was markedly higher in patient with more protruding prostate.

MP5-2.
INHIBITION OF CELL GROWTH AND INDUCTION OF APOPTOSIS ON HUMAN BLADDER CANCER CELLS WITH THE ANTIFUNGAL DRUG MICONAZOLE

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Purpose: Miconazole (MIC) is an imidazole antifungal agent that is commonly applied topically to the skin or mucous membranes to improve fungal infections. Recent studies have demonstrated that MIC exhibits anti-tumor effects on human colon cancers and leukemia. The aim of this study was to determine the effects of MIC on the growth inhibition and apoptosis of human bladder cancer cells.
Materials and methods: Human bladder cancer cell lines (T24 and TSGH-8301) were used in this study. The T24 and TSGH-8301 cells were treated with various concentrations (6, 12, 25, 50 and 100 μM) of MIC for 24 h each. Cell viability was determined by MTT assay. The apoptosis mechanism was detected by sub-G1 population, DNA fragmentation and reactive oxygen species (ROS) generation, and the mitochondrial membrane potentials were evaluated by flow cytometry. SDS-PAGE/Western blot assay was used to detect apoptotic proteins (PARP, caspase-3/-8/-9), Bcl-2 family proteins and cell-cycle-regulated proteins.
Results: The study showed that MIC elicited cytotoxic effects on human T24 and TSGH-8301 bladder cancer cells in a dose- and time-dependent manner with IC50 ~48.3 ± 0.35 μM and 47.8 ± 0.27 μM, respectively, as determined by MTT assay. MIC increased the sub-G1 population, DNA fragmentation formation, activation of caspase-3/-8/-9 and cleavage of poly (ADPribose) polymerase (PARP), and provoked apoptosis in both bladder cancer cell lines. Western blot analysis revealed increases of p21 and p27 protein levels, along with decreases of Cyclin E1, CDK2 and CDK4 expressed in MIC-treated T24 and TSGH-8301 cells, which is related to the G0/G1 phase of the cell cycle. Meanwhile, there was an induced increase of cleaved Bax proteins and a decrease of Bcl-2 proteins, up-regulation of the DR5 death receptor and ROS generation subsequent to reduced mitochondrial membrane potential at higher concentrations (>50 μM) of MIC for 24 h, in both the T24 and the TSGH-8301 bladder cancer cells.
Conclusions: These results indicate that MIC triggered apoptosis via G0/G1 arrest, leading to the activation of the TRAIL death receptor, then activation of caspase-3/-8/-9 and the ROS-dependent mitochondrial pathway in human bladder cancer cells. This suggests that MIC may be a potential anti-bladder cancer agent in humans.

MP5-3.
SIGNIFICANCE OF HER2 EXPRESSION IN UPPER TRACT UROTHELIAL CARCINOMA: A META-ANALYSIS

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Purpose: Several studies explored the prognostic values of HER2 expression in upper tract urothelial carcinoma (UTUC), but the results remain not consistent.
Materials and methods: Using published evidence, we performed a meta-analysis to examine its clinical values in patients with UTUC. Thirty-five articles from 679 references related to EGFR family expression assessment in UTUC were reviewed and there were 7 papers fit for analyses. The estimates included the odds ratio (OR), distribution related to stage and grade, hazard ratios (HR), and 95% confidence intervals (CI) from survival analyses of intravesical recurrence, progression and overall survival.
Results: The pooled results showed that HER2 expression is significantly associated with higher stage, but not with tumor grade in patients with UTUC (OR, 2.05; 95% CI, 1.15-3.68; $p = 0.016$ and OR, 4.73; 95% CI, 0.80–27.8; $p = 0.086$, respectively). Also, the pooled survival analyses demonstrated that HER2 expression yielded a worse recurrence-free survival in UTUC patients (HR, 4.32; 95% CI, 2.17–8.60; $p < 0.0001$). However, there is lack of statistical significance in term of progression-free survival an overall survival (HR, 2.08; 95%CI, 0.46–9.32; $p = 0.339$ and HR, 1.06; 95% CI, 0.48–2.37; $p = 0.879$, respectively).
Conclusion: The relevant studies existed heterogeneous and were limited. Our analysis suggests that HER2 expression plays an important role in subsequent recurrence in the urinary bladder after primary treatment for UTUC.

MP5-4.
DEVELOPMENT OF 3-HYDROXYANTHRANILIC ACID-BASED INTEGRATED NON-INVASIVE BIOSENSOR FOR BLADDER CANCER DETECTION

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Purpose: Bladder cancer is a common human malignancy and exhibits a life-long risk of disease recurrence and progression. It is continuing to search some simple, innovative biomarker to monitor the disease status in order to diminish the suffering during cystoscopic follow-up. The metabolite of tryptophan after indoleamine 2,3-dioxygenase (IDO) digestion, 3-Hydroxyanthranilic acid (3-HAA) is conventionally thought to be a potential biomarker for bladder cancer occurrence. The aim to study is to investigate the diagnostic potential of an integrated a 3-HAA-based biosensor for urothelial carcinoma of the upper tract and urinary bladder.
Materials and methods: Human urothelial cancer cell lines and human urothelial carcinoma tissues as well as adjacent benign tissues were available for exploring IDO expression, including western blotting and immunohistochemical staining. Patients who received urological surgery were enrolled for urine 3-HAA testing using an integrating biosensor for 3-HAA. Some of urine specimens were investigated with high performance liquid chromatography (HPLC) assay.
Results: From western blotting assays, eight human urothelial carcinoma cell lines exhibited more IDO expression than the immortalized cell SV-HUC. Both of urothelial carcinoma of urinary bladder and upper urinary tract exhibited more IDO immunoreactivity than those of the adjacent